TRIAX

Triax Compact Headend

Compact Headend DVB-T-PAL
CSE 0601: 6 channel single mono DSB
CSE 0801: 8 channel single mono DSB
CSE 1201: 12 channel single mono DSB

Compact Headend DVB-S-PAL
CSE 0611: 6 channel single mono DSB
CSE 0811: 8 channel single mono DSB
CSE 1211: 12 channel single mono DSB

User guide

TRIAX

Directory

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Characteristics

Modular Headend system for up to 6, 8 or 12 channels
DVB-T-PAL and DVB-S -PAL

Simple installation and operation by remote control
High Output Level
Multi-lingual OSD
Accessories for wall mounting included
Easy maintenance

Date 04/09-V01

Safety Instructions

Before mounting the Headend please read the instruction manual carefully.

The permissible operating temperature is –10-+50 deg.

Excessive heat, heat accumulation or operating outside the permissible temperature range may affect the durability and are a source of danger (risk of fire)!
Keep ventilation slots free and maintain significant ventilation around the unit.

When using fans with the installation of the Headend in electrical cabinets in order to ensure the permissible ambient temperature you have to take appropriate measures to guarantee a shut-down of the unit (power-off) in the case of a failure of the fan.

The mounting ground should be:

- - even and flame-proof
- - dust-free
- - protected against moisture
- - not under direct radiation of sunlight
- at a sufficient distance from heating sources

Complete the installation before switching the power on or in the case of installations or addition of assembly components! Avoid short circuits!

Switch off the Headend at the wall socket and remove the mains plug.

Make sure that the power cable is not damaged, as this will increase the risk of electric shock or fire.

Electrical Installations must comply to the latest version of the BS 7671Electrical Installations Regulations

Opening of the Headend must only be carried out by qualified or competent persons

In case of condensation, switch Headend off at the wall socket, remove plug and wait until the unit is completely dry before it is turned on again.
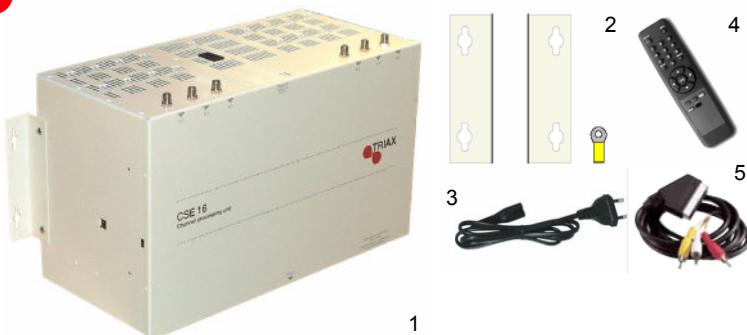
**Contents**
1)   Headend
2)   Brackets for wall mounting+ screws, earth crimp.
3)   Mains Cable
4)   Remote control incl. batteries
5)   AV cable (monitor) SCART to Phono

Dimensions

	X	Y
CSE06	338mm	300mm
CSE08	467mm	428mm
CSE12	604mm	567mm

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Module

PSU

Control Panel

Combiner

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Headend Connections

Signal Input

Loop Through

Red LED un-configured
module

Amber programming
LED

Update/ connect monitor

LED power on

Level adjustment

Signal output
connector

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Combined RF Output

Infra Red sensor

Module selector

Audio Video outputs: connection for Spectrum Analyser

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Quattro LNB

Polarity 1

Polarity 2

Software Update

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Programming

Programming
Factory Reset: English
LNB Power ON 14V (QPSK)
Antenna Power ON (COFDM)
Modulator OFF
Important: Connect only full Headend to PSU.

⚠ Programming only possible without cover!

- Connect the signal sources with the signal inputs of the Headend
- Channel Plan information required
  Loop the required number of modules together using the same input polarity
- Connect the monitor using the audio video outputs on the front panel

Infrared Sensor

Module selector

Audio / Video Outputs

6
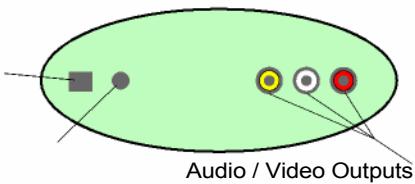
Program Flow

Press and hold down the module select button for 3 seconds. The 1st module will be activated and an amber LED will be illuminated.

Press the "Menu" button on the remote control, this takes you to the "Main Menu", follow programming flowchart.

Important: for each module, you have to allow a 2 channel spacing (DSB). Set out put channel before exiting the menu.

Once exited, press the module select button this will step across to the next module. Repeat steps as above.

When you have completed programming the last module in the Headend, pressing the "Module Select" button again automatically exits the programming mode. To enter this again you will need to hold down the "Module Select" button for approximately 3 seconds.

Screen Layout   Menu item   Remote Control

Method	Transponder ◄►
LOF (MHz)	10600
Frequency	11954 (0...9)
Symbol Rate	22000
Scan now	
Back	
Level	
BER	
Quality / SNR	
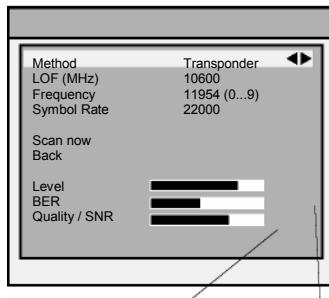
Input box (0...9)
Input of numeric's

Numerical Buttons

Back Button, steps back to previous menu page Menu-back to main menu

◄ ►

Selecting box

Control buttons Input settings

Information box

Control Buttons- Selecting menus
OK– Confirmation
Exit-leave menu
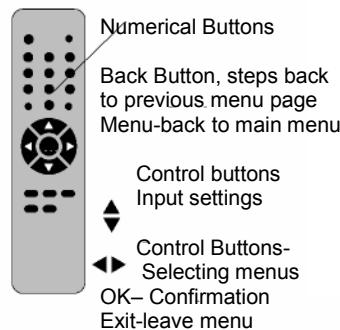
Quality
15-16 dB readings are excellent
Do not fall below 8dB

BER– 10^{-4} good, do not fall below 10^{-3}

Main Menu
System Settings
Search for new services
Output settings
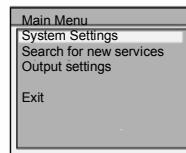
Exit

Main Menu
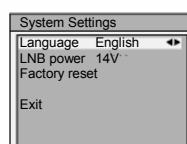
System Settings   **Program Settings**   **Output Settings**
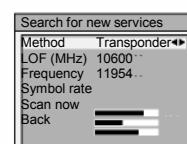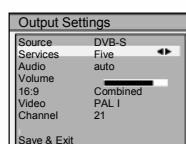
System Settings	
Language	English ◄►
LNB power	14V
Factory reset	
Exit	

Search for new services	
Method	Transponder◄►
LOF (MHz)	10600
Frequency	11954
Symbol rate	
Scan now	
Back	

Output Settings	
Source	DVB-S
Services	Five ◄►
Audio	auto
Volume	
16:9	Combined
Video	PAL I
Channel	21
Save & Exit	

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QPSK—PAL

COFDM—PAL

System settings	
Language	English ◀▶
LNB power	14V
Factory reset	
Save and Exit	

System settings	
Language	English ◀▶
ANT power	
Factory reset	
Save and Exit	
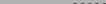
Language	◀ ▶	German / English France / Spanish
LNB power	◀ ▶	14V / OFF
Factory reset		OK
Save & Exit		OK

Language	◀ ▶	German / English France / Spanish
ANT power		Out
Factory reset		OK
Save & Exit		OK

Search for new Services

Search for new services	
Method	Transponder ◀▶
LOF (MHz) 9750	
Frequency (MHz)	10773
Symbol Rate	22000
Scan now	
Back	
Level	
BER	
Quality / SNR	

Search for new services	
Method	Channel ◀▶
Frequency (MHz)	634
Bandwidth (MHz)	8
Scan now	
Back	
Level	
BER	

Method	◀ ▶	Transponder
LOF (MHz)	◀ ▶	09750 / 10600
Frequency	(0...9)	
Symbol Rate	◀ ▶	22000 / 27500
Scan	OK	
Scan	OK	

Method	◀ ▶	Channel / all
Frequency	(0...9)	
Bandwidth	◀ ▶	7 / 8 MHz
Scan	OK	
Scan	OK	

Note: wait for signal level to be displayed before scanning

Output Settings
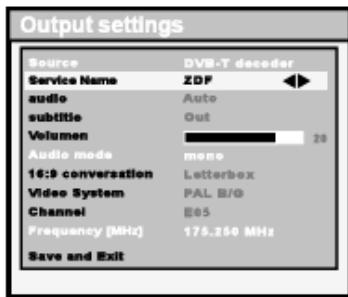
Source		DVB-decoder Master / AV-IN
		DVB-decoder Slave / AV-IN
Service Name	◄►	Switch to programme list
Audio	◄►	Auto / Select audio channel
		(dependent on selected program)
Subtitle	◄►	Auto / Select subtitle channel
		(dependent on selected program)
Volume	◄►	Bar display
Audio Mode	n/a	Mono
16:9	◄►	Normal / Letterbox / combined / Pan Scan
Video System	◄►	PAL I / PAL B/G (default) / SECAM L
Channel	◄►	Select output channel
Frequency	[0...9]	Input only possible on list
Save & Exit	OK	(close menu)
Save & Exit	OK	Switches modulator "ON"
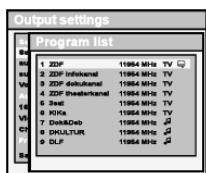
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⚠️ **Module changing**
Attention! Switch Headend off at the wall socket and remove the plug.

1) Unscrew the four cross head screws from the lid and remove.

2) Unplug the Data & DC cables from the Control panel PCB

3) Unscrew the two cross head screws in the Control Panel PCB and remove
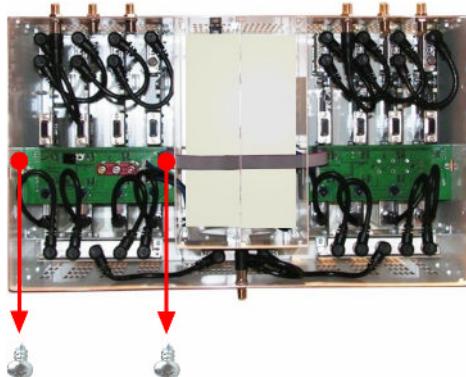
4) Remove the connection cables between the modules
   Remove the connection cables between the modules and combiner
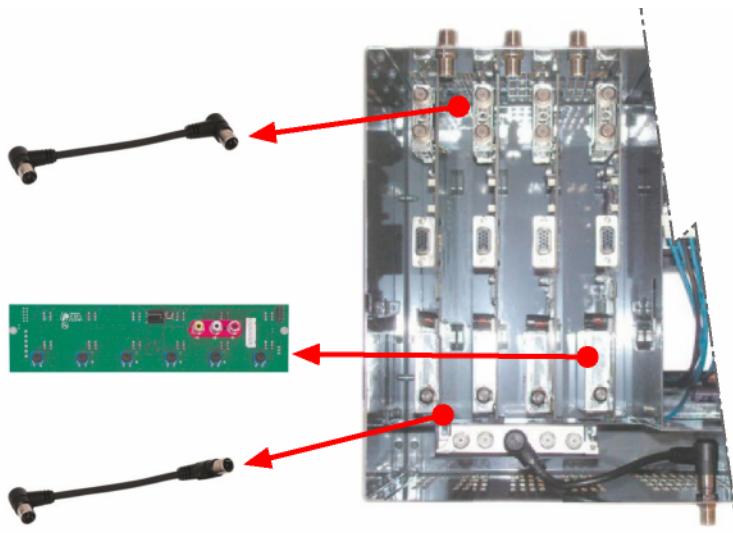
5) Change the modules
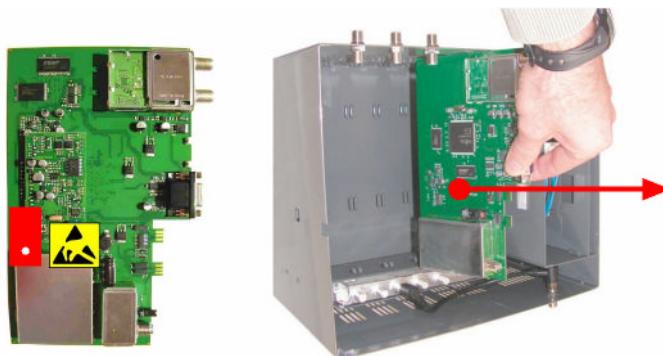
6) Reassemble in reverse order

Do Not Connect the mains power connector until the Headend is fully assembled

Technical Data

Type	CSE0601	CSE0801	CSE1201
Part Number.	324949	324950	324951
Input	DVB-T PAL	DVB-T PAL	DVB-T PAL
Frequency (MHz)	470-862	470-862	470-862
TV Standard	PAL I, B/G, DK, Secam L		
Audio Mode	Single Mono Modulator		
Channels (fully agile)	21-68	21-68	21-68
Modulator Type	DSB	DSB	DSB
Output Level (dBµV)	85	85	85
Level Adjustment	0-15	0-15	0-15
Number of Channels	6	8	12
Output Loop Through	No	No	No
Line Power	12VDC	12VDC	12VDC
Connections	F-Type (f)	F-Type (f)	F-Type (f)
Input Voltage	AC90-264 / 50/60Hz		
Dimensions mm	253 (H) 300 (W) 200 (D)	253 (H) 428 (W) 200 (D)	253 (H) 567 (W) 200 (D)
Weight	5.5 Kg	8.8 Kg	11.5 Kg

Type	CSE0611	CSE0811	CSE1211
Part Number.	324952	324953	324954
Input	DVB-S PAL	DVB-S PAL	DVB-S PAL
Frequency (MHz)	950-2150	950-2150	950-2150
TV Standard	PAL I, B/G, DK, Secam L		
Audio Mode	Single Mono Modulator		
Channels (fully agile)	21-68	21-68	21-68
Modulator Type	DSB	DSB	DSB
Output Level (dBµV)	85	85	85
Level Adjustment	0-15	0-15	0-15
Number of Channels	6	8	12
Output Loop Through	No	No	No
Line Power	0/14V DC	0/14V DC	0/14V DC
Connections	F-Type (f)	F-Type (f)	F-Type (f)
	Quattro LNB Required		
Input Voltage	AC90-264 / 50/60Hz		
Dimensions mm	253 (H) 300 (W) 200 (D)	253 (H) 428 (W) 200 (D)	253 (H) 567 (W) 200 (D)
Weight	5.5 Kg	8.8 Kg	11.5 Kg